

REMARKS

Claims 5-8 and 10 are pending in the Application. Claims 5-8 and 10 stand rejected. Claims 5 and 8 are independent claims from among those currently under examination.

The Office Action requests updated status of the parent application. Applicant submits that a Patent No. 6, 705,126 B2, arising from the parent application, issued on Mar 16, 2004.

Claims 5-8 and 10 stand rejected under 35 U.S.C. 112, second paragraph, as allegedly failing to provide proper antecedent basis for the phrase "the inner and out air holes." In response, applicant has deleted the phrase "inner and out." Applicant submits that claims 5 and 8, as amended, comply with the requirements of 35 U.S.C. 112, second paragraph. Applicant respectfully requests removal of this rejection on each claim accordingly.

Claims 5 and 8 stand rejected under 35 U.S.C. §103(a) as allegedly being obvious over U.S. patent Oh *et al.* (U.S. 6,519,974) or alternatively over G.B. patent application publication Oh *et al.* (G.B. 2,314,077).

Applicant respectfully submits that US patent to Oh is disqualified as prior art under 35 U.S.C. §103(c). Under 35 U.S.C. §103(c), a reference is disqualified as a prior art if (1) the subject matter of the reference was developed by inventors other than those of the present invention, (2) the reference qualifies as prior art only under 35 U.S.C. §102(e), (f), or (g), and (3) the subject matter of the reference and the present invention were, at the time the present invention was made, owned by the same entity.

The US patent qualifies as prior art only under 35 U.S.C. §102(e), because it was filed by another, its filing date of June 10, 1996 in the United States precedes the effective filing date of the present application, and its issue date of February 18, 2003 comes after our effective filing date. Furthermore, the subject matter of the present application and US patent Oh reference

were, at the time the present invention was made, owned by or obligated to be assigned to Samsung Electronic Co., Ltd. As such, US patent Oh meets all requirements of 35 U.S.C. §103(c) and the US patent to Oh consequently does not qualify as prior art with respect to the claims in the instant patent application.

From the substantive standpoint, the GB publication to Oh, a counterpart of the US patent, fails to show, anticipate, and/or render obvious claims 5 and 8, for the following reasons. Hereinafter, the applicant, in referring to Oh, refers to the GB publication.

Claim 5 recites, *inter alia*, “a gas supplier for supplying gas into the air holes via the preform cover...” Claim 8 recites a similar feature. As noted in the specification, the gas supplier provides gas into the open end of the substantially vertical air holes of the preform, via the preform cover (Figure 3; see also Page 8, line 10-13 and Figure 3).

Oh, as read by applicant, discloses an optical fiber drawing apparatus that fuses and draws an optical fiber preform simultaneously. However, Oh does not include a gas supplier that supplies gas into the air holes via the preform cover. Instead, Oh shows a gas supplier that removes gas from the optical fiber via an adjoiner, which the Office Action equates with the present preform cover (Page 5, line 21-24 of GB Oh). In particular, Oh shows that the gas supplier forces gas through the channel 56 of the adjoiner (Page 5, line 21-24). As the gas flows through the channel, the pressure at the upper end of tube C is lowered and air between the preform and cladding layer is removed via tubes C (see page 5, line 31 – page 6, line 8). Accordingly, Oh removes gas from the optical fiber; it does not show the gas supplier that supplies gas into the air holes via preform cover, as recited in claims 5 and 8.

Even if the supplied gas somehow flows to the space between the preform and the cladding layer, Oh does not render claims 5 and 8 obvious. Oh discloses that if the gas flows to

the preform, it flows through the suction tubes C having an opening adjacent to the lateral side of the preform (Figure 6A and 8). As such, the gas somehow flowing to the suction tubes C is directed to the side surface of the preform where no air hole openings are disposed. And, the flowing gas would not be supplied into the air holes via the preform cover, as in claims 5 and 8.

Moreover, claims 5 recite, *inter alia*, “a gas supplier for supplying gas into the air holes via the preform cover to prevent the air holes from being distorted.” Claim 8 recites similar features. As noted in the specification, gas supplier prevents distortion in the air holes by providing a predetermined amount of gas at a constant pressure into the air holes via preform cover that seals one end of a holey preform (Page 8, line 10-13; see also Figure 3).

Nowhere in Oh, however, is there a disclosure that its gas supplier prevents the air holes from being distorted by providing gas into the air holes. Instead, Oh shows a gas supplier that would induce and ultimately cause air holes within the optical fiber preform to distort by lowering pressure between the preform and the cladding.

As noted above, the gas supplier disclosed in Oh removes air from the space between the preform and cladding and lowers the air pressure within such space (Page 5, line 31 – page 6, line 8 of GB Oh). As the pressure at such space is lowered, the pressure in the air hole exceeds that of the space. As such, the air holes would expand anisotropically toward the space in response to difference in pressure and distort. Meanwhile, any structural support resisting expansion of the air holes would diminish as heat is applied and the preform becomes more fluid, as taught by Oh (Page 6, line 35 – page 7, line 8 (indicating that applying heat compromises the structural support of the preform that would otherwise resist a physical force, such as its weight exerted by gravity)).

As such, applicant respectfully submits that Oh discloses a gas supplier that induces and ultimately causes the air holes to distort. It does not show the gas supplier that prevents the air holes from being distorted by supplying gas into the air holes via the preform cover, as recited in claims 5 and 8.

For all foregoing reasons, applicant respectfully submits that Oh fails to show, anticipate, and/or render obvious either of claims 5 and 8. As such, applicant respectfully requests reconsideration and removal of 35 U.S.C. §103(a) rejections on claims 5 and 8.

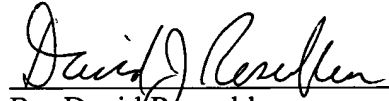
Other claims in this application are each dependent on the independent claims 5 and 8 and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration of the patentability of each on its own merits is respectfully requested.

Amendment
Serial No. 10/619,707

If any issues remain which may be best resolved through a telephone communication, the Examiner is requested to kindly telephone the undersigned telephone number listed below.

Respectfully submitted,

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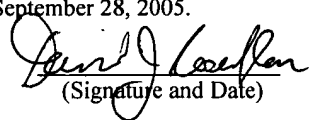
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